NOTES FOR 4 BOLT HOLD DOWN PLATE

ACCORDANCE WITH AASHTO M111.

OF THE ENGINEER.

 $1\frac{1}{16}$ " DIA. HOLES –

GUARDRAIL END SHOE-SEE STD. 862.02

€ GUARDRAIL AND BOLT

7∕8" BOLTS WITH -

ROUND WASHERS FOR

ATTACHING GUARDRAIL END SHOE TO BARRIER.

FOR $\frac{7}{8}$ " BOLTS (TYP.)

14" HOLD-DOWN PLATE —

AND 7 - $\frac{7}{8}$ " DIA. BOLTS WITH NUTS AND WASHERS.

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN

AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED

7 BOLT HOLD DOWN PLATE

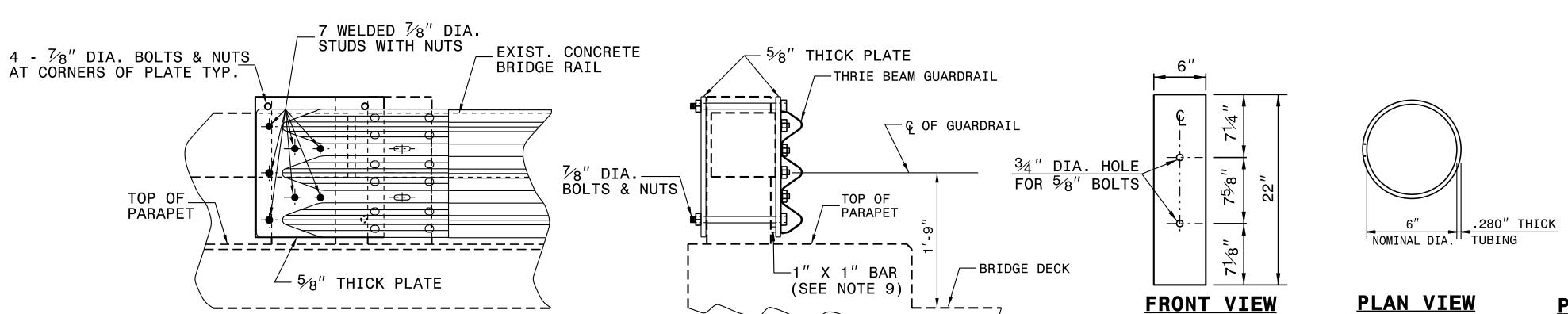
PART SECTION OF BARRIER OR RAIL

THRU END SHOE SECTION AND 7 BOLT HOLD DOWN PLATE

WITH A SHARP POINTED TOOL. THE $1\frac{1}{4}$ " DIA. HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION

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4 @ 7/8" DIA. X 1'-2" BOLTS AND 5⁄8" X 1'-7" X 1'-8" BACK PLATE NUTS W/ 2 GALV. WASHERS EACH BOLT THRU ANCHORAGE BRIDGE RAIL BRIDGE END POST -BRIDGE POST - PORTABLE CONCRETE BARRIER SYSTEM FIELD VERIFY PARAPET WIDTH (MAX. WIDTH 15" 5/8" X 1'-7" X 1'-8" FRONT PLATE STD. STEEL SPACER TUBE
BOLTED TO GUARDRAIL ONLY ullet GUTTER LINE 10 GA. END SHOE STD STEEL SPACER TUBE(S) A36 WITH ALTERED STEEL SPACER TUBE (SEE INSET "A") -PLAN VIEW BOLTED TO GUARDRAIL ONLY



SECTION VIEW

VARIABLE ___ .280" THICK 12½" MIN. TUBING 5½″ MAX.

> PLAN VIEW INSET "A"

STEEL SPACER TUBE

GENERAL NOTES: 1. USE NUTS, BOLTS, AND WASHERS CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-307 AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.

2. TAP NUTS FOR THE 7/8" DIA. STUDS AND BOLTS AFTER GALVANIZING SEE A.S.T.M. A-563.

ELEVATION VIEW

3. USE PLATES AND TUBES CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A-36 AND GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 1076 OF STAND. SPECS.

4. ADDITIONAL FIELD HOLES MAY BE DRILLED IN STEEL RAIL AS DIRECTED BY THE ENGINEER. 5. INSTALL FACE OF GUARDRAIL AS NEAR AS POSSIBLE TO PLUMB WITH THE PARAPET FACE AT BRIDGE END POST SPACER TUBE LOCATION BY USING STANDARD OR ALTERED SPACER TUBES OR A COMBINATION THEREOF OR AS DIRECTED BY THE ENGINEER. FOR VERY SMALL PARAPET WIDTHS,

GUARDRAIL MAY BE INSTALLED AGAINST BRIDGE RAIL WITHOUT SPACER TUBES. 6. DO NOT DRILL BRIDGE RAIL IN ORDER TO INSTALL GUARDRAIL ANCHOR UNIT.

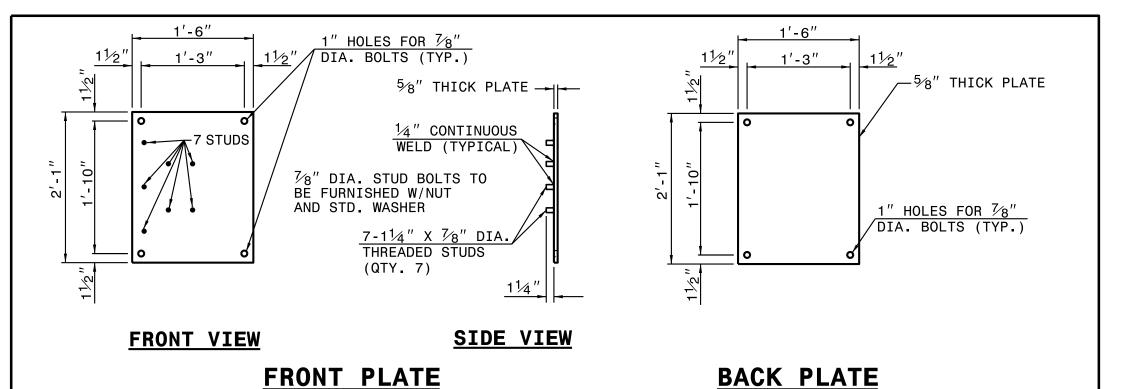
7. USE THIS DETAIL ONLY FOR BRIGES WITH POST AND BEAM TYPE RAIL.

8. ATTACH 1" X 1" BAR AND THREADED STUDS TO PLATE WITH 1/4" WELDS ALL AROUND. 9. 1" X 1" BAR MAY NOT BE NEEDED ON BRIDGE RAILS WHERE FACE OF RAIL DOES NOT PROJECT BEYOND FACE OF POST.

10. PROVIDE SHOP DRAWINGS OF THE PLATES TO THE ENGINEER FOR APPROVAL BEFORE FABRICATING THE PLATES.

11. LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.

12. SEE ROADWAY STANDARD DRAWING 862.03 SHEET 3 FOR ADDITIONAL INFORMATION ON THE TYPE III ANCHOR UNIT



BRIDGE PLATES

BACK PLATE

ORIGINAL BY: E.E. WARD _DATE: <u>01-03</u> MODIFIED BY: KA Kempf DATE: <u>10-19</u> CHECKED BY: DATE:

33144

 $-1\frac{1}{4}$ " DIA. HOLE (TYP.)

-SEE DETAIL B FOR 14" HOLD-DOWN PLATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

TEMPORARY ANCHOR UNIT TYPE THRIE-BEAM

FILE SPEC: s:details\stand\bpiii originial.dgn